

THE INVENTION CLAIMED IS:

1. An apparatus for driving and tensioning a ribbon comprising:

a housing;

means for supplying a ribbon mounted on said housing;

5 supply dancer means for applying tension to the ribbon, said supply dancer means being positioned downstream of said supplying means, said supply dancer assembly including a supply dancing arm pivotally mounted on said housing and a supply channel affixed to said housing, a portion of said supply dancing arm being capable of moving in and out of said supply channel;

10 a printhead mounted on said housing and positioned downstream of said supply dancer means;

take-up dancer means for applying tension to the ribbon, said take-up dancer means being positioned downstream of said printhead, said take-up dancer assembly includes a take-up dancing arm pivotally mounted on said housing and a take-up
15 channel affixed to said housing, a portion of said take-up dancing arm being capable of moving in and out of said take-up channel; and

means for taking up the ribbon mounted on said housing.

2. An apparatus as defined in claim 1, wherein said supply dancing arm has a
20 roller rotatably attached to said portion thereof which is capable of moving in and out of said supply channel.

3. An apparatus as defined in claim 2, wherein said supply channel has first and second ends, and said supply dancer means further including a first idler roller rotatably attached to said housing and spaced from said first end of said supply channel a predetermined distance and a second idler roller rotatably attached to said
25 housing and spaced from said second end of said supply channel a predetermined distance.

4. An apparatus as defined in claim 3, wherein said first and second idler rollers are spaced from said first and second ends of said supply channel the same distance.

5. An apparatus as defined in claim 4, wherein said first and second idler rollers are spaced from each other a distance which is slightly greater than a width of said supply dancing arm.

6. An apparatus as defined in claim 1, wherein said supply channel is U-shaped.

7. An apparatus as defined in claim 6, wherein said supply dancing arm is generally U-shaped.

8. An apparatus as defined in claim 1, wherein said supply dancer means further includes a spring for biasing said supply dancing arm toward said supply channel.

9. An apparatus as defined in claim 1, wherein said supply dancing arm has a tab provided thereon for allowing a user to pivot said supply dancing arm relative to said supply channel.

10. An apparatus as defined in claim 1, further including a position sensor provided in association with said supply dancing arm for use in electronically determining the position of said supply dancing arm relative to said supply channel.

11. An apparatus as defined in claim 1, wherein said take-up dancing arm has a roller rotatably attached to said portion thereof which is capable of moving in and out of said take-up channel.

12. An apparatus as defined in claim 11, wherein said take-up channel has first and second ends, and said take-up dancer means further including a first idler roller

rotatably attached to said housing and spaced from said first end of said take-up channel a predetermined distance and a second idler roller rotatably attached to said housing and spaced from said second end of said take-up channel a predetermined distance.

5 13. An apparatus as defined in claim 12, wherein said first and second idler rollers are spaced from said first and second ends of said take-up channel the same distance.

14. An apparatus as defined in claim 13, wherein said first and second idler rollers are spaced from each other a distance which is slightly greater than a width of said take-up dancing arm.

10 15. An apparatus as defined in claim 1, wherein said take-up channel is U-shaped.

16. An apparatus as defined in claim 15, wherein said take-up dancing arm is generally U-shaped.

17. An apparatus as defined in claim 1, wherein said take-up dancer means further includes a spring for biasing said take-up dancing arm toward said take-up channel.

15 18. An apparatus as defined in claim 1, wherein said take-up dancing arm has a tab provided thereon for allowing a user to pivot said take-up dancing arm relative to said take-up channel.

19. An apparatus as defined in claim 1, further including a position sensor provided in association with said take-up dancing arm for use in electronically
20 determining the position of said take-up dancing arm relative to said take-up channel.

20. An apparatus as defined in claim 1, wherein said supply dancing arm has a

roller rotatably attached to said portion thereof which is capable of moving in and out of said supply channel, and said take-up dancing arm has a roller rotatably attached to said portion thereof which is capable of moving in and out of said take-up channel.

5 21. An apparatus as defined in claim 1, wherein said supply channel has first and second ends, and said supply dancer means further including a first supply idler roller rotatably attached to said housing and spaced from said first end of said supply channel a predetermined distance and a second supply idler roller rotatably attached to said housing and spaced from said second end of said supply channel a predetermined distance, and said take-up channel has first and second ends, said take-up dancer means further including a first take-up idler roller rotatably attached to said housing and spaced from said first end of said take-up channel a predetermined distance and a second take-up idler roller rotatably attached to said housing and spaced from said second end of said take-up channel a predetermined distance.

10 22. An apparatus as defined in claim 21, wherein said first and second supply idler rollers are spaced from said first and second ends of said supply channel the same distance, and said first and second take-up idler rollers are spaced from said first and second ends of said take-up channel the same distance.

15 23. An apparatus as defined in claim 22, wherein said first and second supply idler rollers are spaced from each other a distance which is slightly greater than a width of said supply dancing arm, and said first and second take-up idler rollers are spaced from each other a distance which is slightly greater than a width of said take-up dancing arm.

20 24. An apparatus as defined in claim 1, wherein said supply channel is U-shaped, and said take-up channel is U-shaped.

25. An apparatus as defined in claim 23, wherein said supply dancing arm is generally U-shaped, and said take-up dancing arm is generally U-shaped.

26. An apparatus as defined in claim 1, wherein said supply dancer means further includes a supply spring for biasing said supply dancing arm toward said supply
5 channel, and said take-up dancer means further includes a take-up spring for biasing said take-up dancing arm toward said take-up channel.

27. An apparatus as defined in claim 1, wherein said supply dancing arm has a supply tab provided thereon for allowing a user to pivot said supply dancing arm relative to said supply channel, and said take-up dancing arm has a tab provided
10 thereon for allowing a user to pivot said take-up dancing arm relative to said take-up channel.

28. An apparatus as defined in claim 1, wherein said supplying means is driven and said taking up means is driven.

29. An apparatus as defined in claim 28, further including a position sensor
15 provided in association with said supply dancing arm for use in electronically determining the position of said supply dancing arm relative to said supply channel.